



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

CN 029

TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

JAN 28 1986

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

RECEIVED

JAN 29 1986

INCOMING MAIL

MEMORANDUM

TO: Eric Evenson, Superfund Coordinator, DWR
FROM: Lisa Mirmanesh through Stephen Johnson, Supervisor, Bureau
of Ground Water Pollution Analysis, New Jersey Geological
Survey
SUBJECT: Montgomery Township Housing Development, Montgomery Twps.
Somerset County, "Ground Water Contamination Area
Delineation"

Purpose

This memo is to inform you of the "ground water contaminated area" at the Montgomery Township Housing Development (MTHD). The source(s) of the contamination are unknown. The source(s) of contamination, extent of contamination, contaminant movement, types and concentrations of hazardous substances present and remedial alternatives will be evaluated under the Remedial Investigation/Feasibility Study (RIFS) to be performed by Woodward-Clyde Consultants.

Ground Water Contamination Area

The area included in the MTHD is bounded by Montgomery Road to the north, the Millstone River to the east, the borough line to the south and, Route 206 to the west. This area is diagrammatically shown on Attachment one (1). In general, the ground water is contaminated (over 50 ppb of volatile organics) in the southern portion of the Development. Most of the northern portion of the development has shown low levels (less than 10 ppb) of volatile organic contamination. Nearly one-half of the residents have been connected to the Elizabeth-town Water Supply. Attachment two (2) provides the specific block and lot numbers comprising the contaminated and/or threatened residences which are still using individual potable wells. Usage of these wells should cease for all purposes when the water main is connected to the residence. Attachment three (3) provides specific block and lot numbers for those residences which are no longer using their potable wells. Each potable well in the "contaminated area

should be sealed following the NJDEP well sealing statues, Attachment four (4). The water main hook up(s) will be performed as part of general appropriations. A determination should be made as whether the well closure(s) can also be covered under general appropriations.

New ground-water development (potable wells, irrigation wells and industrial wells) should not be permitted within the "contaminated area".

This "ground-water contaminated area" responds to our present knowledge of the ground-water contamination and actual and potential ground-water movement. The results of the RI/FS may affect the dimensions of the "area" as depicted on Attachment one (1). The RI/FS should be completed in late 1986.

Please contact me for further assistance if needed.

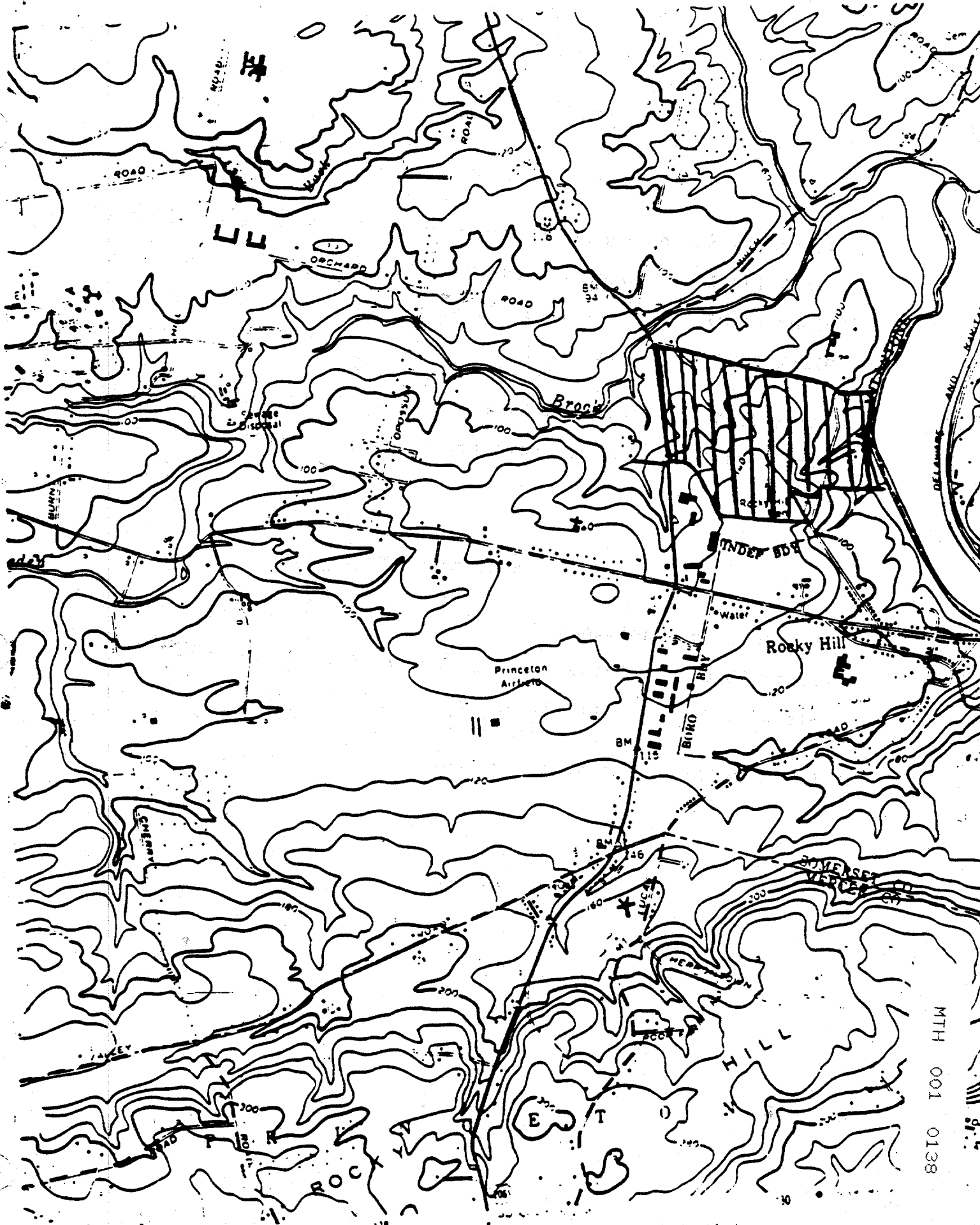
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cc: HK/WFA/File

Kevin Psarianos, Site Manager, HSMA
Bob Myers, Technical Coordinator, BEERA
Janek Preczewski, Water Supply Planning and Management
Dave Setter, Water Supply Planning and Management
Carol Graff, Water Allocation

Attachments

MTH 001 0137



MTH 001 0138

PRINCETON
5084 1 SW

Attachment 1

USGS Quadrangle Rocky Hill
Published 1970

ROAD 100

Attachment Two (2)

Residents Not on Municipal Water as of 7/17/85, reconfirmed 1/17/86

Block 23001 Lots; 17, 20, 23, 27, 28

Block 29001 Lots; 1, 2, 3, 4, 5, 5.01, 5.02, 6, 6.01, 7

Block 29002 Lots; 1, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 16, 17,
18, 19, 20, 24, 28, 37, 40, 43

Block 29003 Lots; 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 18

Note: All lots may not have potable wells located on them

Attachment Three (3)

Residents on Municipal Water as of 7/17/85, reconfirmed 1/17/86

Block 23001 Lots; 18, 19, 21, 22, 24, 25, 26, 29

Block 29002 Lots: 2, 9, 10, 21, 22, 23, 25, 26, 27, 29, 30, 31,
32, 33, 34, 35, 36, 38, 39, 41, 42

Block 29003 Lots; 1, 19, 16, 17

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
STANDARD SPECIFICATIONS FOR SEALING ABANDONED WELLS

NJSA 58:4A-4.1

Sealing of abandoned wells, notice; violation

The owner of any well shall, upon abandonment of any existing well or test hole, so notify the division and shall effectively seal and fill such wells and test holes in accordance with the rules and regulations of the division. A well not in operation for three (3) or more years or improperly maintained to prevent contamination may be deemed to have been abandoned. Any person who shall violate the provisions of this section shall be guilty of a misdemeanor. L. 1951, c. 193, p. 718, s.22.

NJSA 58:4A-4.2

Order to seal abandoned well - failure to comply

The division shall have power to order the sealing of any such abandoned well when in its judgment the condition of the well endangers or threatens to endanger the subsurface or percolating waters by the intrusion of salt water or from any other causes or endangers life. The owner of any abandoned well who shall fail or refuse to seal it in the time and manner ordered by the division shall be subject to a penalty of five hundred dollars (\$500.00) for each and every violation, and a further penalty of fifty dollars (\$50.00) for each day during which such violation shall continue. L. 1951, c. 193, p. 718, s. 3.

NJSA 58:4A-4.3

Enforcement of Act

The provisions of this act shall be enforceable by action or other proceeding in the Superior Court of New Jersey to obtain relief in the nature of injunctive relief, both restraining and mandatory, and also by action or proceeding in said court in lieu of prerogative writ. L. 1951, c. 193, p. 718, s. 4.

SUBCHAPTER 9. SEALING OF ABANDONED WELLS

7:9-9.1 General provisions

- (a) The filling and sealing of an abandoned well in accordance with the following specifications will be accepted as in compliance with the provisions of NJSA 58:4A-4.1. A well may not be sealed by a proposed alternate method unless first approved in writing by the Bureau of Water Control of the Division of Water Resources.
- (b) No person, partnership or corporation may engage in the sealing of a well unless his qualifications and experience have been approved in writing by the Bureau of Water Control of the Division. Depending upon the qualifications of a contractor, the Bureau may limit a contractor to the sealing of only certain types of wells (e.g. rock wells, single case wells and the like.) All sealing operations shall be under the immediate supervision of a person possessing a valid New Jersey Well Drillers License.
- (c) The use of dynamite in well-sealing operations is expressly prohibited unless authorized in writing by the Bureau of Water Control of the Division.
- (d) The following types of wells may not be sealed until the contractor has submitted a drawing with description of method proposed, which must be approved in writing by the Bureau of Water Control of the Division:
1. Wells drilled in areas where saltwater intrusion is imminent (e.g. beach communities;
 2. Wells which have already been affected by saltwater intrusion or any other contaminants;

1. Clear well of pump, and all other obstructions and remove as much inner casing as possible.

2. If gravel pack within annular space(s) between casing(s) does not extend from the screened formation to the aquifer above and is at least 20 feet below the next aquifer, the contractor may fill the screen with sand or gravel and seal the well and annular space as described in Section (a) 2.

3. If gravel within annular space(s) extends to within 20 feet of the next water bearing formation, either of the two methods described below are acceptable:

i. Place packer at the top of the screen, and inject a nontoxic chemical grout under pressure into the screen and surrounding gravel pack below the packer and at least 20 feet vertically into the gravel pack occupying the annular space(s) between casings. If preferred, this section may be filled with sterilized coarse gravel prior to grout injection in order to reduce the amount of grout needed. After the grout has set, the remaining casing and annular space(s) shall be sealed as described in Section (a) 2.

ii. If preferred the screen and casing may be filled with sterilized sand to a point between the screen and next overlying aquifer but at least 20 feet below the next aquifer. The inner casing(s) then shall be perforated or ripped at this point, a packer inserted, and nontoxic chemical grout injected under pressure below the packer into the surrounding gravel pack so that the annular space(s) between casings is sealed for a vertical distance at least 20 feet between the screen and the next aquifer. After the grout has set the remaining casing and annular space(s) shall be sealed as described in Section (a) 2.

7:9-9.4 Test Wells

(a) An unused test well shall be considered an abandoned well and shall be sealed as described in the previous sections unless it is to be used for observation purposes in which case permission must be granted in writing by the Bureau of Water Control of the Division.

(b) If the casing of a test well is to be removed, the open hole shall be filled with a sterilized clay slurry weighing not less than 14 pounds per gallon, cement grout, neat cement or concrete, which shall be introduced from the bottom of the space to be filled. In unconsolidated formations, the sealing material shall be introduced into the bottom of the hole while the casing is pulled so as to prevent the uncased hole from caving. The producing zone, or uncased hole in a rock well shall be filled with sterilized gravel or crushed stone. However, in rock wells where zones of poor-quality water were encountered or where geologic and hydrologic conditions make it undesirable to use gravel or crushed stone, the entire hole shall be sealed.